Index for Volume 38 (1989)

COMPILED BY TROY L. BEST

Acanthixalus, 182
Additive distances, rate variation, and the perfect-fit theorem, Mark S. Springer and Carey Krajewski, 371–375
Additivity, 93–105
Aechmophorus, 98, 102, 103
  clarkii, 95, 96, 101
  occidentalis, 95, 96, 101
Aepyprymnus, 38, 39, 44, 46
  rufescens, 40–43, 45, 50
Afrixalus, 182
Agelaius phoeniceus, 108
Albumin, 38–50, 154–165
Albumin immunologic relationships of the Macropodidae (Marsupialia), Peter R. Baverstock, Barry J. Richardson, Jan Birrell, and Malcolm Krieg, 38–50
Alleles, 283–290
Allometry, 144–153, 169–173
Allometry, isometry and shape in principal components analysis, Keith M. Somers, 169–173
Allozymes, mitochondrial DNA, and levels of phylogenetic resolution among four minnow species (*Notropis*: Cyprinidae), Thomas E. Dowling and Wesley M. Brown, 126–143
Amalda, 392
Amblystoma, 399
Ambystoma, 399
Ametrida, 232
Amia, 354
  calva, 353
Amphibians, 398–406
Amphignathodon, 365
Amphistichus heermanni, 280
Anabantidae, 325
Anacylas, 241–243, 259
Analysis,
  canonical trend surface, 333–341
  character, 214–227
  comparative, 201–213
  principal components, 166–168, 169–173
  trend surface, 333–341
Anas
  acuta, 275
  platyrhynchos, 275
Anolis, 57–69, 130
  alutaceus, 58, 60
  angusticeps, 58, 60
  auratus, 58, 60, 61, 65
  bimaculatus, 58, 60, 65–68
  carolinensis, 58, 60, 62, 65–67
  chlorocyanus, 58, 60
  cristatellus, 58–60, 65–68
  cuvieri, 58, 60, 65–68
  cybotes, 58, 60, 65–68
  darlingtoni, 58
  equestris, 58, 60
  fuscoauratus, 58, 60, 65
  grahami, 58, 60, 65
  latifrons, 58, 60, 65–68
  lucius, 58
  meridionalis, 58, 60
  monticola, 58
  onca, 58, 60, 61
  petersi, 58, 60, 65
  punctatus, 58, 67
  sagrai, 58, 60
Antitropicality and vicariance: a reply to Briggs, Brian N. White, 77–79
Anwar, Jazanul, see Whitten, Anthony J., —
Apatopygidae, 284
Apatopygus, 284, 285
Apis mellifera, 207
Application of bootstrap methods to reduced major axis line fitting, Roy E. Plotnick, 144–153
Araucariaceae, 325
Archie, James W., A randomization test for phylogenetic information in systematic data, 239–252
Archie, James W., Homoplasy excess ratios: new indices for measuring levels of homoplasy in phylogenetic systematics and a critique of the consistency index, 253–269
Ardops, 232
Arenophryne, 154, 158, 159
Ariteus, 232
Arthropods, 144–153
Artibeus, 232
Australian frogs, 154–165
Aves, 106–115
Avicennia, 395

Baker, Robert J., Craig S. Hood, and Rodney L. Honeycutt, Phylogenic relationships and classification of the higher categories of the New World bat family Phyllostomidae, 228–238
Ball, George E. (ed.), Taxonomy, phylogeny and zoogeography of beetles and ants (rev.), 86–87
Baltoeurypterus, 151
  tetraganophthalmus, 147–150
Barapasaurus, 323
Barbujani, Guido, Neal L. Oden, and Robert R. Sokal, Detecting regions of abrupt change in maps of biological variables, 376–389
Batrachoseps, 186
Baverstock, Peter R., Barry J. Richardson, Jan Birrell, and Malcolm Krieg, Albumin immunologic re-

lationships of the Macropodidae (Marsupialia), 38–50
Bdelloura, 356, 364
Bdellouridae, 355, 356
Benton, M. J. (ed.), The phylogeny and classification of the Tetrapods. Volume 1: amphibians, reptiles, birds. Volume 2: mammals (rev.), 408–409
Benz, G. W., see O'Grady, R. T., —
Bettongia, 38, 44
gaimardi, 40–43, 45, 46, 50
lesueuri, 46, 50
penicillata, 46, 50
Biochemical data, 7–25
Biogeography, 322–332
Birrell, Jan, see Baverstock, Peter R., —
Bison, 348
bison, 342–347
Bledsoe, Anthony H., and Frederick H. Sheldon, The metric properties of DNA-DNA hybridization dissimilarity measures, 93–105
Bocquet-Appel, Jean-Pierre, and Robert R. Sokal, Spatial autocorrelation analysis of trend residuals in biological data, 333–341
Boidae, 7–25
Bolitoglossa, 186
Bookstein, Fred L., "Size and shape": a comment on semantics, 173–180
Bootstrap, 144–153, 201–213
Bos, 348
grunniens, 342–347
taurus, 342–347
Bothrioplana semperi, 359
Boundary detection, 376–389
Bovidae, 342–349
Bovini, 342–349
Brachyphylla, 229, 232
Branching, 1–6
Briggs, 77–79
Briggs, John C., The historic biogeography of India: isolation or contact?, 322–332
Brown, Wesley M., see Dowling, Thomas E., and —
Bryant, Harold N., An evaluation of cladistic and character analyses as hypothetico-deductive procedures, and the consequences for character weighting, 214–227
Bubalus, 342, 346
bubalis, 343–345, 347
Bufo, 400
lentiginosus, 280
woodhousei, 280, 281
woodhousii, 280, 281
Burramyidae, 40
Butorides, 102, 103
striatus, 95

Cactoblastis cactorum, 384
Caeciliidae, 402
Callixalus, 182
Caloprymnus, 38, 40
Cannatella, David C., and Kevin de Queiroz, Phylogenetic systematics of the anoles: is a new taxonomy warranted?, 57–69
Cannell, Peter F., see Mooi, Rich, —
Canonical trend surface analysis, 333–341
Carollia, 232–234
Cassidulidae, 285
Cassidulus, 284–286
Centrovarioplana tenuis, 359
Centurio, 232
Cercartetus, 42, 46
nanus, 40, 41, 50
Cercyra teissieri, 355
Cercyridae, 355, 358
Cerion, 144
Chamaeleolis, 58–62, 64, 65
Chamaelinorops, 58–60, 64, 65
Chandler, C. Ray, and Mark H. Gromko, On the relationship between species concepts and speciation processes, 116–125
Character
analysis, 214–227
congruence, 7–25
independence, 7–25
weighting, 214–227
Characters,
multistate, 54–57, 79–85
Charadrius vociferus, 108
Chelonia, 403
Cheverud, James M., Gunter P. Wagner, and Malcolm M. Dow, Methods for the comparative analysis of variation patterns, 201–213
Chiroderma, 232
Chironomidae, 367
Chloris, 241–243, 259
Choeroniscus, 232
Chrotopterus, 228, 231–233, 235
Chrysemys picta, 167
Chrysobatrachus, 182
Cicindela, 194
abdominalis, 193
andrewesi, 193
angulata, 193
assamensis, 193
aurofasciata, 193
belfragei, 193
bicolor, 193
bigemina, 193
biramosa, 103
calligramma, 193
cancellata, 193
cardoni, 193
catena, 193
celeripes, 193
chloris, 193
circumpicta, 193
cuprascens, 193
dasiodes, 193
depressula, 193
duodecimguttata, 193
duponti, 193
erudita, 193
fabriciana, 193
fastidiosa, 193
formosa, 193
fowleri, 193
fulgida, 193
fulgoris, 193
grammophora, 193
haemorrhagica, 193
hamata, 193

hamiltoniana, 193
hirticollis, 193
horni, 193
intermedia, 193
lemniscata, 193
lengi, 193
limbata, 193
longilabris, 193
macra, 193
marutha, 193
melancholica, 193
minuta, 193
motschulskyana, 193
multiguttata, 193
nebraskana, 193
nevadica, 193
nigrocoerulea, 193
obsoleta, 193
ocellata, 193
oregona, 193
pamphila, 193
patruela, 193
pimeriana, 193
pulchra, 193
punctulata, 193
purpurea, 193
repanda, 193
rufiventris, 193
rugosiceps, 193
schauppi, 193
scutellaris, 193
sedecimpunctata, 193
severa, 193
severini, 193
sexguttata, 193
splendida, 193
striatifrons, 193
striolata, 193
sumatrensis, 193
togata, 193
tranquebarica, 193
venosa, 193
virgula, 193
westermanni, 193
willistoni, 193
Cicindelidae, 191–195
Cladistic analysis, 214–227
Cladistic and character analyses as hypothetico-deductive procedures, and the consequences for character weighting, an evaluation of, Harold N. Bryant, 214–227
Classification, 228–238
Cnemidophorus, 241–243, 259
Cocos zeylanica, 395
Coding, nonredundant linear, 54–57
Columba livia, 106, 108
Columbidae, 106–115
Compagno, L. J. V., Sharks of the order Carcharniniformes (rev.), 292–293
Comparative
  analysis, 201–213
  systematics, 253–269
Concern for evidence and a phylogenetic hypothesis of relationships among *Epicrates* (Boidae, Serpentes), a, Arnold G. Kluge, 7–25
Conidae, 394
Connor, Edward F., review by, 197–198
Consistency index, 239–252, 253–269
Convergence, 126–143, 350–370
Corallus, 13, 15
Coregonus williamsoni, 280
Corellas, 241–243, 259
Crinia, 154, 156, 158
  riparia, 159
  signifera, 160, 161
Crocodylidae, 404
Crocodylus, 404
Cryptothylax, 182
Ctenonotus, 67
  bimaculatus, 58
  cristatellus, 58
  cybotes, 58
Culex pipiens, 274
Cypraeidae, 394
Cyprinidae, 126–143, 325

Dactyloa, 67
  latifrons, 58
Damanik, Sengli J., see Whitten, Anthony J., —
Dasyurindae, 241–243, 259
de Queiroz, Kevin, see Cannatella, David C., and —
Deets, G. B., see O'Grady, R. T., —
Dendrocoelum, 359
Dendrolagus, 38, 39, 40, 42, 44, 46, 47
  dorianus, 46, 50
  goodfellowi, 46, 50
  lumholtzi, 43, 45, 50
Dermanura, 232
Desmodontidae, 229, 235
Desmodus, 232, 235
Desmognathus, 186
Detecting regions of abrupt change in maps of biological variables, Guido Barbujani, Neal L. Oden, and Robert R. Sokal, 376–389
Diaemus, 232, 235
Dial, Kenneth P., and John M. Marzluff, Nonrandom diversification within taxonomic assemblages, 26–37
Diphylla, 232, 235
Dipodomys, 241–243, 259
Discoglossidae, 324
Distribution of the testis-specific Ldh-X among avian taxa with comments on the evolution of the Ldh gene family, Ronald H. Matson, 106–115
Distributions,
  hollow curve, 26–37
DNA
  evolution, 93–105
  sequences, 342–349
  hybridization, 93–105
Dodenaea, 395
Dorcopsis, 38, 39, 44, 45, 47
  hageni, 43, 50
Dorcopsulus, 38, 40, 42, 44, 47
  macleayi, 43, 45, 50
Dow, Malcolm M., see Cheverud, James M., —
Dowling, Thomas E., and Wesley M. Brown, Allozymes, mitochondrial DNA, and levels of phylogenetic resolution among four minnow species (*Notropis*: Cyprinidae), 126–143

Drosophila, 134, 136, 241–243, 253, 259, 262–266, 364
buzzatii, 383, 384
melanogaster, 274
Dundee, Harold A., and Hobart M. Smith, Nomenclatural eponym endings revisited, 279–283
Dundee, Harold A., Higher category name usage for amphibians and reptiles, 398–406
Dysoxylem, 395

Echinolampadidae, 285
Echinolampas, 285, 286
Ecsenius, 326
Ectophylla, 232
Electrophoresis, 106–115
Elingamita, 395
Elytranthe, 395
Emydidae, 398
Enchisthenes, 232
Ensatina, 186
Epicrates, 7–25
angulifer, 7, 14, 15, 18, 24
cenchria, 7, 13–15, 18, 24
chrysogaster, 7, 14, 15, 18, 19, 24
exsul, 7, 14, 15, 18–21, 24
fordii, 7, 14, 15, 18, 19, 21, 24
gracilis, 7, 14, 15, 18–21, 24
inornatus, 7, 14, 15, 18, 19, 24
monensis, 7, 14, 15, 18, 19, 21, 24
striatus, 7, 13, 14, 15, 18, 24
subflavus, 7, 14, 15, 18–20, 24
Equus, 241–243, 259, 346
Erophylla, 229, 232
Eublepharidae, 398
Eunectes, 13, 15
Euphagus cyanocephalus, 108
Eurycea, 186
Eurypterus, 151
pittsfordensis, 147, 148, 150
Evidence, 7–25
Eviella, 359, 360
Evolution, 297–309
Evolutionary
rates, 126–143
success, 189–191
trees, 297–309, 310–321
Expression of ancestral patterns, 350–370

Farris, James S., The retention index and homoplasy excess, 406–407
Faujasiidae, 284
Felidae, 365
Felis lynx, 365
Fewest variables coding method for multistate characters, Nick Goldman, 79–85
Ficus, 71, 73
Framework for the quantitative study of evolutionary trees, a, Michael D. Hendy and David Penny, 297–309
Freycinetia, 395
Frodin, David G., review by, 88–90
Funk, Vicki A., see Mooi, Rich, —

Gallinula chloropus, 108
Gallus gallus, 107
Gene frequencies, 376–389
Generalized tracks, 69–76, 390–398
Generalized tracks and geology, B. Michaux, 390–398
Genetic species concept, 270–279
Geocrinia, 154, 158, 159
Gerygone, 241–243, 259
Giraffa camelopardalis, 343, 347
Glossophaga, 232
Glossopteris, 323
Goldman, Nick, Fewest variables coding method for multistate characters, 79–85
Gossypium, 71
Graphs and generalized tracks: some comments on method, C. J. Humphries and O. Seberg, 69–76
Gromko, Mark H., see Chandler, C. Ray, and —
Guyer, Craig, see Slowinski, Joseph B., and —

Hardouinia, 284, 285
Heliconia, 241–243, 259
Hemidactylium, 186
Henderson, Gregory S., see Whitten, Anthony J., —
Hendy, Michael D., and David Penny, A framework for the quantitative study of evolutionary trees, 297–309
Hendy, Michael D., The relationship between simple evolutionary tree models and observable sequence data, 310–321
Heterixalus, 182
Higher category name usage for amphibians and reptiles, Harold A. Dundee, 398–406
Historic biogeography of India: isolation or contact?, the, John C. Briggs, 322–332
Historical perspectives, ecology, and tiger beetles: an alternative discussion, Rich Mooi, Peter F. Cannell, Vicki A. Funk, Paula M. Mabee, Richard T. O'Grady, and Christopher K. Starr, 191–195
Hisyam, Nazaruddin, see Whitten, Anthony J., —
Holconotus trowbridgii, 280
Hollow curve distributions, 26–37
Homalopomanus trowbridgii, 280
Homology, 350–370
Homoplasy, 239–252, 253–269
Homoplasy excess ratios: new indices for measuring levels of homoplasy in phylogenetic systematics and a critique of the consistency index, James W. Archie, 253–269
Homoplasy level, 253–269
Honeycutt, Rodney L., see Baker, Robert J., —
Hood, Craig S., see Baker, Robert J., —
Humphries, C. J., and O. Seberg, Graphs and generalized tracks: some comments on method, 69–76
Hybridization, 126–143
Hydromantes, 186
Hyla, 400
Hylonycteris, 232
Hyperoliidae, 181
Hyperolius, 182
Hypothetico-deductive methodology, 214–227
Hypsiprymnodon, 38, 39, 40, 44–46
moschatus, 43, 50

Icterus galbula, 108
Immunological distance, 38–50
India, 322–332
Indobatrachus, 325, 330
Isometry, 169–173

Isozymes, 106–115

Kankanophryne, 154, 160
Kassina, 182
Kassinula, 182
Kluge, Arnold G., A concern for evidence and a phylogenetic hypothesis of relationships among *Epicrates* (Boidae, Serpentes), 7–25
Krajewski, Carey, see Springer, Mark S., and —
Krieg, Malcolm, see Baverstock, Peter R., —

Lacerta crocodilus, 404
Lagorchestes, 38, 39, 44
  conspicillatus, 40–43, 45, 50
Lagostrophus, 38, 39, 44, 46, 47
  fasciatus, 40–43, 45, 50
Laipis, Philip J., see Miyamoto, Michael M., —
Laurent, G., Paleontologie et evolution en France 1800–1860: une histoire des idees de Cuvier et Lamarck a Darwin. Preface by C. C. Gillispie (rev.), 291–292
Ldh-C, 106–115
Ldh-X, 106–115
Le Grand, H., Drifting continents and shifting theories, 409
Le Quesne, Walter J., The normal deviate test of phylogenetic value of a data matrix, 51–54
Lepisosteidae, 353, 354
Leptodactylidae, 241–243, 259, 325
Leptonycteris, 232
Leptopelis, 182
Lichonycteris, 232
Liebherr, James K. (ed.), Zoogeography of Caribbean insects (rev.), 291
Limnadella kitei, 280, 281
Limnodynastes
  dumerili, 161
  fletcheri, 162
  tasmaniensis, 158, 162
Lionycteris, 232, 233
Litoria
  ewingi, 162
  flavipunctata, 161
  verreauxi, 162
Littorina saxatilis, 167
Lonchophylla, 232, 233
Lonchorhina, 228, 231–233, 235

Mabee, Paula M. Mabee, see Mooi, Rich, —
Macaca
  mulatta, 205, 210
  nemestrina, 205, 210
Macrophyllum, 228, 231–233, 235
Macropiper, 395
Macropodidae, 38–50
Macropus, 38, 39, 47
  agilis, 46, 50
  arma, 50
  dorsalis, 46, 50
  eugenii, 40–46, 50
  fuliginosus, 45, 46, 48, 50
  giganteus, 40, 43–46, 48, 50
  irma, 46, 50
  parma, 46
  parryi, 46, 50
  robustus, 46, 50
  rufogriseus, 46, 50
  rufus, 40, 43–46, 50
Macrotus, 228, 230–233, 235
Majungaella, 324
Mantel's test, 201–213
Marsupialia, 38–50
Marzluff, John M., see Dial, Kenneth P., and —
Masters, J. C., and H. G. Spencer, Why we need a new genetic species concept, 270–279
Mate recognition, 116–125
Matson, Ronald H., Distribution of the testis-specific Ldh-X among avian taxa with comments on the evolution of the Ldh gene family, 106–115
Maximum parsimony principle, 1–6
Maxson, Linda R., see Roberts, J. Dale, and —
MC'F, 38–50
McCoy, Earl D., review by, 291
Megacephala carolina, 193
Melagris gallopavo, 107
Melanerpes formicivorus, 108
Menidia, 241–243, 259
Mesophylla, 232
Metacrinia, 154–165
Metacrinia nicholsi, 154–156, 159
Methods for the comparative analysis of variation patterns, James M. Cheverud, Gunter P. Wagner, and Malcolm M. Dow, 201–213
Metric properties of DNA-DNA hybridization dissimilarity measures, the, Anthony H. Bledsoe and Frederick H. Sheldon, 93–105
Metrics, 93–105
Metrosideros, 395
Miava evelinae, 356
Michaux, B., Generalized tracks and geology, 390–398
Micronycteris, 228, 230–233, 235
Microteiidae, 241–243, 259
Mimon, 228, 231–233, 235
Minimum length trees, 239–252
Mitochondrial DNA, 126–143, 342–349
Mitridae, 394
Miyamoto, Michael M., Susan M. Tanhauser, and Philip J. Laipis, Systematic relationships in the artiodactyl tribe Bocini (Family Bovidae), as determined from mitochondrial DNA sequences, 342–349
Molecular perspective on relationships of Australian *Pseudophryne* (Anura: Myobatrachidae), a, J. Dale Roberts and Linda R. Maxson, 154–165
Molecular systematics, 342–349
Monocelididae, 359
Monophyllus, 232
Mooi, Rich, Peter F. Cannell, Vicki A. Funk, Paula M. Mabee, Richard T. O'Grady, and Christopher K. Starr, Historical perspectives, ecology, and tiger beetles: an alternative discussion, 191–195
Mooi, Rich, The outgroup criterion revisited via naked zones and alleles, 283–290
Mormoopidae, 229
Morphological
  data, 7–25
  integration, 201–213
Morphometrics, 201–213
Moxostoma
  campbelli, 280

kennerlii, 280
Mullaria, 325
Musonycteris, 232
Mustafa, Muslimin, see Whitten, Anthony J., —
Myobactgrachidae, 241–243, 259
Myobatrachidae, 154–165
Myobatrachus, 154, 157–159, 165
gouldii, 156
Myrsinaceae, 395
Myrtaceae, 324, 325, 330

Naked zones, 283–290
Naylor, Gavin J. P., review by, 292–293
Nelson, Gareth, reviews by, 86, 88, 196–197, 291–292, 293–294, 408–409, 409
Neocollyris variitarsus, 193
Nephelornis oneilli, 97
Nerpa, 356, 364
Nomenclatural eponym endings revisited, Harold A. Dundee and Hobart M. Smith, 279–283
Nonrandom diversification within taxonomic assemblages, Kenneth P. Dial and John M. Marzluff, 26–37
Nonrandom dominance, 26–37
Nonredundant linear coding of multistate characters, additional observations on, R. T. O'Grady, G. B. Deets, and G. W. Benz, 54–57
Nonuniversal derived character state, 350–370
Normal deviate test of phylogenetic value of a data matrix, the, Walter J. Le Quesne, 51–54
Norops, 67, 68
auratus, 58
fuscoauratus, 58
grahami, 58
meridionalis, 58
onca, 58
petersi, 58
sagrai, 58
Nothofagus, 394
Notropis, 126–143
chrysocephalus, 126–137, 143
cornutus, 126–137, 141
photogenis, 126–137
rubellus, 126–137, 141
Nucleolites, 284, 285
Nucleolitidae, 284
Null models, 26–37

O'Grady, R. T., G. B. Deets, and G. W. Benz, Additional observations on nonredundant linear coding of multistate characters, 54–57
O'Grady, Richard T., see Mooi, Rich, —
Obrimoposthia wandeli, 358
Oden, Neal L., see Barbujani, Guido, —
Odontocheila
annulicornis, 193
cayennensis, 193
confusa, 193
luridipes, 193
Olividae, 392
Omus audouini, 193
Onychogalea, 38, 40, 42, 44, 47
unguifera, 43, 45, 50
Opheodrys, 241–243, 259
Ophisthothylax, 182

Optimality criteria, 253–269
Opuntia, 384
Oreortyx pictus, 108
Otomesostoma auditivum, 359, 360
Outgroup criterion revisited via naked zones and alleles, the, Rich Mooi, 283–290

Paedomorphosis, 7–25
Paraepicrates, 13
Parallelism, 350–370
Paratropis, 396
Parsimony, 1–6, 214–227, 239–252, 253–269, 297–309
Passer domesticus, 108
Pelobatidae, 324
Pentacoelum, 356, 364
Pentacomia egregia, 193
Peradorcas, 38, 44–47
canescens, 50
concinna, 43
Percilia gillissi, 280
Percina, 241–243, 259
Perfect-fit theorem, 371–375
Peromyscus
boylii, 241–243, 259
maniculatus, 28
Petauridae, 40
Petaurus, 42, 46
breviceps, 40, 41, 50
Petrogale, 38, 39, 44, 47
assimilis, 46, 50
brachyotis, 46, 50
burbidgei, 46, 50
celeris, 46
godmani, 46, 50
herberti, 46, 50
inornata, 40, 43, 45, 46, 50
lateralis, 46, 50
pearsoni, 46, 50
penicillata, 46, 50
persephone, 46, 50
purpureicollis, 46, 50
rothschildi, 46, 50
xanthonotis, 50
xanthopus, 46, 50
Phalangeridae, 40
Phenacosaurus, 58, 60, 63–65
Pheodrilidae, 325
Phlyctimantis, 182
Phylloderma, 231
Phyllonycteris, 229, 232
Phyllops, 232
Phyllostomidae, 228–238
Phyllostomus, 228, 230–232, 234, 235
Phyloderma, 232
Phylogenetic
reconstruction, 228–238, 350–370
relationships, 228–238
systematics, 7–25, 57–69, 253–269
value, 51–54
Phylogenetic systematics of the anoles: is a new taxonomy warranted?, David C. Cannatella and Kevin de Queiroz, 57–69
Phylogenic relationships and classification of the higher categories of the New World bat family

Phyllostomidae, Robert J. Baker, Craig S. Hood, and Rodney L. Honeycutt, 228–238
Phylogeny, 1–6, 57–69, 93–105, 228–238, 239–252
Pimephales notatus, 127–133, 136
Pinicola enucleator, 97
Pipilo erythrophthalmus, 108
Plagiostomidae, 359, 360
Planariidae, 360
Platalina, 232
Plate tectonics, 322–332
Plectomirtha, 395
Plethodon, 186
Plethodontidae, 186
Pliolampadidae, 285
Plotnick, Roy E., Application of bootstrap methods to reduced major axis line fitting, 144–153
Podarcis, 241–243, 259
Polycelis felina, 359
Polychrus, 61, 63, 64
Pomatiopsidae, 325
Pomocentridae, 241–243, 259
Porites, 395
Potorous, 38, 39, 44, 46
tridactylus, 40–43, 45, 50
Presch, William, Systematics and science: a comment, 181–189
Principle of parsimony, 350–370
Probursa
moei, 358
veneris, 358
Procerodella macrostoma, 356
Proctotretus stantoni, 280
Proteus, 401
Protobatrachidae, 401, 404
Protobatrachus, 401
Pseudoepicrates, 13
Pseudophryne, 154–165
australis, 154, 157, 158, 160, 165
bibroni, 154–158, 160–162, 165
coriacea, 154, 155, 157, 158, 160, 165
corroboree, 154, 155, 157, 158, 160, 162, 165
dendyi, 154, 156–158, 160, 165
douglasi, 154, 157, 158, 160, 162, 165
guentheri, 154–158, 160–162, 165
major, 154, 157, 158, 160, 165
nichollsi, 154
occidentalis, 154, 155, 157, 158, 160, 162, 165
semimarmorata, 154, 156–158, 160, 165
Puiteca rigida, 356
Pygoderma, 232
Pygopodidae, 241–243, 259

Quadratic assignment procedures, 201–213

Rallus philippensis, 396
Rampant parallelism: an appraisal of the use of nonuniversal derived character states in phylogenetic reconstruction, Ronald Sluys, 350–370
Rana
aurora, 183, 185
boylii, 183, 185
cascadae, 184, 185
muscosa, 185
pretiosa, 184, 185
Randomization test for phylogenetic information in systematic data, a, James W. Archie, 239–252
Rate variation, 371–375
Relationship between simple evolutionary tree models and observable sequence data, the, Michael D. Hendy, 310–321
Relationship between species concepts and speciation processes, on the, C. Ray Chandler and Mark H. Gromko, 116–125
Reptiles, 398–406
Retention index and homoplasy excess, the, James S. Farris, 406–407
Rhinophylla, 232–235
Rhodax evelinae, 359, 360
Rhopalostylis, 395
Richardson, Barry J., see Baverstock, Peter R., —
Rieppel, Oliver C., Fundamentals of comparative biology (rev.), 88
Roberts, J. Dale, and Linda R. Maxson, A molecular perspective on relationships of Australian *Pseudophryne* (Anura: Myobatrachidae), 154–165
Romankenkius, 359, 360
Ruse, Michael, Philosophy of biology today (rev.), 197–198

Sabussowia dioica, 355
Saitou, Naruya, A theoretical study of the underestimation of branch lengths by the maximum parsimony principle, 1–6
Salamandridae, 241–243, 259
Salmo gloverii, 280
Santeelampas, 285, 286
Sapindacea, 395
Schuh, Randall T., review by, 86–87
Sciuridae, 28
Scleronycteris, 232
Seberg, O., see Humphries, C. J., and —
Secondary change, 350–370
Semiurus, 67
cuvieri, 58
Serpentes, 7–25
Setonix, 38, 39, 40, 42, 44, 47
brachyurus, 43, 45, 48, 50
Shape, 166–168, 169–173, 173–180
Shape and size-constrained principal components analysis, Per Sundberg, 166–168
Sheldon, Frederick, H., see Bledsoe, Anthony H., and —
Simuliidae, 366
Size, 166–168, 173–180
.CW10
"Size and shape": a comment on semantics, Fred L. Bookstein, 173–180
Slowinski, Joseph B., and Craig Guyer, Testing null models in questions of evolutionary success, 189–191
Sluys, Ronald, Rampant parallelism: an appraisal of the use of nonuniversal derived character states in phylogenetic reconstruction, 350–370
Smith, Hobart M., see Dundee, Harold A., and —
Sober, Elliot, Reconstructing the past: parsimony, evolution, and inference (rev.), 293–294
Sokal, Robert R., see Barbujani, Guido, —
Sokal, Robert R., see Bocquet-Appel, Jean-Pierre, and —

Somers, Keith M., Allometry, isometry and shape in principal components analysis, 169–173
Spathula, 359, 360
Spatial autocorrelation analysis of trend residuals in biological data, Jean-Pierre Bocquet-Appel and Robert R. Sokal, 333–341
Special issue on panbiogeography: space-time-form (rev.), 196–197
Speciation, 116–125, 154–165
Species concept, 116–125
  genetic, 270–279
Spencer, H. G., see Masters, J. C., and —
Sphaeronycteris, 232
Sphaerotheriidae, 325
Springer, Mark S., and Carey Krajewski, Additive distances, rate variation, and the perfect-fit theorem, 371–375
Starr, Christopher K., see Mooi, Rich, —
Stenoderma, 232
Streblus, 71
Streptopelia, 106
  chinensis, 108
  risoria, 108
Sturnella neglecta, 108
Sturnira, 232
Sundberg, Per, Shape and size-constrained principal components analysis, 166–168
Sus scrofa, 343
Symmetry, 93–105
Syncerus, 342
Syncoelidium, 364
  ernesti, 356
Systematic relationships in the artiodactyl tribe Bocini (Family Bovidae), as determined from mitochondrial DNA sequences, Michael M. Miyamoto, Susan M. Tanhauser, and Philip J. Laipis, 342–349
Systematics, 106–115, 181–189, 342–349
Systematics and science: a comment, William Presch, 181–189

Tachycnemis, 182
Tamias, 241–243, 259
Tanhauser, Susan M., see Miyamoto, Michael M., —
Tapaya herndesi, 280
Tassy, P. (ed.), L'ordre et la diversité du vivant: quel statut scientifique pour les classifications biologiques? (rev.), 86
Taxonomic congruence, 7–25
Test,
  normal deviate, 51–54
Testing null models in questions of evolutionary success, Joseph B. Slowinski and Craig Guyer, 189–191
Testudine, 403
Testudines, 403
Testudinibus, 403
Testudo, 403
Thaumaleidae, 367
Theoretical study of the underestimation of branch lengths by the maximum parsimony principle, a, Naruya Saitou, 1–6
Thylogale, 38, 39, 44–47
  stigmatica, 43, 50
Tonatia, 228, 231–233, 235
Topology, 1–6
Tornierella, 182
Total evidence, 7–25
Trachops, 228, 231–233, 235
Trend
  residuals, 333–341
  surface analysis, 333–341
Triangle inequality, 93–105
Trichomycterus macraei, 280
Trichosurus, 42, 46
  vulpecula, 40, 41, 50
Turbinaria, 395

Uma, 241–243, 259
Underlying synapomorphy, 350–370
Uperoleia, 154, 155, 158–160, 165
  inundata, 156, 157
Uroderma, 232
Uromastix hardwickii, 111
Uteriporidae, 355, 356

Vampyressa, 232
Vampyrodes, 232
Vampyrops, 232
Vampyrum, 228, 231, 232, 233, 235
Vermeij, Geerat J., review by, 87–88
Vicariance, 77–79
Viperidae, 398

Wagner, Gunter P., see Cheverud, James M., —
Wainwright, S. A., Axis and circumference, the cylindrical shape of plants and animals (rev.), 87–88
Wallabia, 38, 39, 40, 42, 44, 47, 48
  bicolor, 43, 45, 46, 50
White, Brian N., Antitropicality and vicariance: a reply to Briggs, 77–79
Whitten, Anthony J., Muslimin Mustafa, and Gregory S. Henderson, The ecology of Sulawesi (rev.), 88–90
Whitten, Anthony J., Sengli J. Damanik, Jazanul Anwar, and Nazaruddin Hisyam, The ecology of Sumatra (rev.), 88–90
Why we need a new genetic species concept, J. C. Masters and H. G. Spencer, 270–279
Wombling, 376–389

Xenoboa cropanii, 13

Zenaida, 106
  macroura, 108